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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,318

03/16/2004

John Scott Heuvel

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EXAMINER

KENNY, DANIEL J

ART UNIT

PAPER NUMBER

3633

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,318	<b>Applicant(s)</b> HEUVEL ET AL.	
	<b>Examiner</b> DANIEL KENNY	<b>Art Unit</b> 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, and 6-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 6, 8-12, 20, and 21 - are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowndes, III (4,724,649) in view of Rogers (P.G. US 2004/0049995) and Jolliffe (4,930,677)

Lowndes discloses a concrete structural section (16) for use in construction, the concrete structural section comprising:

**Claims 1 and 2** - a first end, a second end disposed opposite the first end, and a length extending between the first and second ends;

first (fs) and second oppositely disposed sides extending along the length of the section from about the first end to about the second end, the first side including a thickness defined by a bottom surface and a top surface (essentially the thickness of the section);

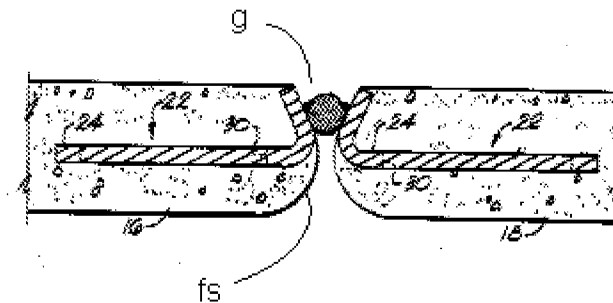
first and second edges (22) connected to the concrete section between the top portion and the bottom surface and extending along the first and second sides respectively, for connecting the concrete section to adjoining concrete sections.

Regarding the claimed plastic edge material, Lowndes discloses that the first edge could be made of a material other than steel (col. 3, line 10), and Rogers discloses interchangeability (para. 24) between metal and plastic material, especially material that

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is to be later, for example, welded. Regarding the claimed first edge top portion being recessed from the concrete section top surface, Jolliffe discloses such an arrangement (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to replace the familiar steel edge of Lowndes with the plastic edge of Rogers because it does no more than yield predictable results of providing corrosion resistance, and it would have been obvious to one of ordinary skill in the art at the time the present invention was made to recess the Lowndes-taught top portion as taught by Jolliffe because it does no more than yield predictable results of making clearance for caulking.



Annotated Fig. 1 (U.S. Pat. 4,724,649)

**Claim 6** - The concrete section includes a double-tee (col. 3, line 68) having a deck and two legs extending downwardly from the deck.

**Claim 8** - The first edge has a cross-section that remains substantially the same as the first section extends along the length of the concrete section.

**Claim 3** – is rejected under 35 U.S.C. 103(a) as being unpatentable over Lowndes, III in view of Rogers and Jolliffe and in further view of Copley et al.

Copley et al. discloses a concrete section with an edge comprising a lateral portion (lp) adjacent the first side of the concrete section, an extension (ex) extending into the concrete section from the lateral portion, and an anchor portion (ap) disposed at an end of the extension opposite the lateral portion, the first edge being at least partially embedded within the concrete section, the anchor portion having a cross-sectional area greater than the cross-sectional area of the extension.

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the familiar edge of Lowndes, III with the anchor portion type edge of Copley et al. because it does no more than yield predictable result of holding the edge more tightly into the concrete.

**Claim 7** – is rejected under 35 U.S.C. 103(a) as being unpatentable over Lowndes, III in view of Rogers and Jolliffe, and in further view of Fischer (2,374,186).

Lowndes, III does not expressly disclose the first edge having an exposed face facing away from the section and a concealed face facing towards the section and contacting the concrete, the concealed face defining an elongated channel extending at least partially along the length of the section, the elongated channel having an opening and a base, the opening being narrower than the base and forming an interlocking tongue-and-groove engagement with the 15 concrete section with at least a portion of the concrete disposed within the elongated channel.

Fischer discloses a concrete body (m) with an edge (A, Fig 1 and Fig. 6) having an exposed face facing away from the section and a concealed face facing towards the section and contacting the concrete, the concealed face defining an elongated channel extending at least partially along the length of the section, the elongated channel having an opening and a base, the opening being narrower than the base and forming an interlocking tongue-and-groove engagement with the concrete section with at least a portion of the concrete disposed within the elongated channel.

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the familiar edge of Lowndes with the tongue-and-groove edge of Fischer because it does no more than yield predictable result of keying the edge tightly into the concrete.

Claims 9-12 - Lowndes discloses a joint (Fig. 1) between two pre-formed concrete sections comprising:

**Claim 9** - first concrete section (16) having a first side (fs) extending along the first concrete section and a first edge (22) connected to the first side, the first edge extending between the top portion and a bottom surface of the first side;

a second concrete section (18) having a second side extending along the second concrete section and a second edge connected to the second side, the second concrete section being positioned adjacent the first concrete section with the first and second edges extending adjacent one another and being substantially evenly spaced from one another along the sections, the first and second edges being formed from a metal

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material; and a continuous weld (col. 3, lines 4 and 5) extending between the first and second edges and connecting the first section to the second section, the weld being formed from a metal material.

Lowndes does not expressly disclose the first and second edges being formed from a plastic material; and the continuous weld extending between the first and second edges and connecting the first section to the second section being formed from a semi-flexible plastic material. However, Lowndes does allow that the edges may be made of other materials (col. 3, line 10). In fact, Rogers discloses that, in joining adjacent sections by welding, metal and plastic material (for both the sections and the weld) are interchangeable (para. 24). Regarding the claimed first edge top portion being recessed from the concrete section top surface, Jolliffe discloses such an arrangement (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to substitute the familiar welded metal edges of Lowndes with the plastic base material/plastic weld combination of Rogers because it does no more than yield predictable results of, for example, adding corrosion resistance, and it would have been obvious to one of ordinary skill in the art at the time the present invention was made to recess the Lowndes-taught top portion as taught by Jolliffe because it does no more than yield predictable results of making clearance for caulking.

**Claim 10** – Lowndes does not expressly disclose a specific, detailed edge spacing. It would have been obvious to one having ordinary skill in the art at the time of

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invention to make the blocks to a particular dimensions, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955)

**Claim 11** - Each section includes a top surface, a bottom surface disposed opposite the top surface, and a groove (g) extending adjacent the respective edge and the top surface, the weld being at least partially disposed within the groove and being vertically below the top surfaces of the sections.

**Claim 12** - The weld inherently forms a seal between the first and second edges and resists material from passing between the sections.

**Claim 13** - is rejected under 35 U.S.C. 103(a) as being anticipated by Lowndes, III on view of Jolliffe.

Lowndes discloses a concrete section assembly comprising:

a first (16) and second (18) concrete section, each section having a first end and a second end disposed opposite one another, a side extending between the first and second ends of the section, an edge (22) connected to the side of each section and extending along the side, the edge extending between the top surface and a bottom surface of the side, the sections aligned with the respective side of each section being adjacent to one another; and



a continuous weld (col. 2, line 64) between the edges of the sections and extending substantially along the length of the sections (col. 2, line 18) from about the first end to the second end.

Regarding the claimed first edge top portion being recessed from the concrete section top surface, Jolliffe discloses such an arrangement (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to recess the Lowndes-taught top portion as taught by Jolliffe because it does no more than yield predictable results of making clearance for caulking.

Claims 14-19 - are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowndes, III in view of Jolliffe and in further view of Rogers.

**Claims 14 and 15** - Lowndes discloses all the claim limitations as described above, including the edges made of a variety of materials (col. 3, line 10). Rogers discloses that plastic and metal materials (and their respective welds) are interchangeable (para. 24).

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to substitute the familiar welded metal edges of Lowndes with the plastic base material/plastic weld combination of Rogers because it does no more than yield predictable results of, for example, adding corrosion resistance.

**Claim 16** - The plastic weld taught by Rogers is semi-flexible as broadly recited.

**Claim 17** - Lowndes does not expressly disclose a specific, detailed edge spacing. It would have been obvious to one having ordinary skill in the art at the time of invention to make the blocks to a particular dimensions, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955)

**Claim 18** - Each section has a deck the decks of each section being substantially co-planar with one another.

**Claim 19** – A recessed groove (g) disposed between the sections and being at least partially defined by the sides, the edges and the weld.

**Claims 20 and 21**- are an obvious method of using the section assembly of Lowndes, III modified by Jolliffe and Rogers et al.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The new limitation reciting the edge extending between the recessed top portion and bottom surface of the side does not patentably distinguish the claimed invention

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from the references. The modification of Lowndes would be to add the recessed top surface of Jolliffe; the edge of a Lowndes modified by Jolliffes joint extending between the recessed top portion and bottom surface of the side. Regarding Applicant's argument that the Jolliffes-taught leg does not extend to the bottom surface of the side of the concrete slab, such is not claimed. What is claimed is an edge extending between a recessed top portion and bottom surface of the side.

The remaining portion of the remarks simply highlights certain elements of the secondary references, as in for example, the remarks regarding the rejection of claim, without any apparent specific argument as to traversal of the rejection.

### ***Conclusion***

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL KENNY whose telephone number is (571)272-9951. The examiner can normally be reached on Mon-Fri. 8:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571 272 6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. K./  
Examiner, Art Unit 3633

/Jeanette E Chapman/  
Primary Examiner, Art Unit 3633